

## **REMARKS**

### ***Summary of Amendments***

1. Claims 1-8 were originally submitted in this case. Claims 9-12 have been added in this paper. No claims have been canceled. Claims 1 and 2 have been amended, as described in more detail below, to more particularly point out and distinctly claim the subject matter of the instant invention. Claims 1-12 remain pending.

### ***Claim Objections***

2. Claim 2 is objected to because of an apparent "typographical error in that 50 □m should be replaced by 50µm." In Applicants' original electronic copy of the instant application, claim 2 reads "50 µm." Applicant respectfully submits that the typographical error must have been due to an inadvertent printer error and thanks the Examiner for noting it. Notwithstanding, claim 2, as amended, now reads: "is in the range from 50 µm to 35 mm."

### ***Claim Rejections - 35 U.S.C. § 102***

3. Claims 1-8 stand rejected under 35 U.S.C. § 102(b) as being anticipated by both U.S. Pat. No. 5,688,331 to Aruga et al and U.S. Pat. No. 5,800,618 to Niori et al. With regard to Aruga et al., the Examiner states:

Aruga et al. disclose a wafer holder for semiconductor manufacturing equipment (Fig. 6-39) with a diameter of the wafer carrying surface clearly much smaller (more than 50 µm) than the diameter of the opposite side.

With regard to Niori et al, the Examiner states:

Niori et al. disclose a wafer holder for semiconductor manufacturing equipment (Fig. 6-31) with a diameter of the wafer-carrying surface clearly much smaller (more than 50 µm due to flange 31c) than the diameter of the opposite side.

4. Applicant respectfully traverses this rejection to the extent that it is pertinent to independent claim 1, as amended. Claim 1 has been amended to recite: "wherein the diameter *b* minus the diameter *a* is greater than 0 µm and less than or equal to 35 mm." This amendment is supported by Nos. 9-27 of original Table I, as well as by Nos. 29-35 of Table II, such that no new matter has been entered, nor should a new search be required.

5. Applicant respectfully submits that claim 1, as amended, now distinguishes patentably over the prior art of record. In particular, neither Aruga et al. or Niori et al. include any teaching, disclosure, or even any suggestion, of the relative relationship between the diameter of the wafer carrying face (diameter **a** in claim 1) and the diameter of the side opposite the wafer carrying face (diameter **b** in claim 1). In fact, neither reference makes any mention of the diameter of either face. Thus, neither reference can anticipate amended claim 1. Accordingly, amended claim 1 must be patentable over Aruga et al. and Niori et al.
6. As amended, claim 1 recites that the diameter **b** minus the diameter **a** is less than or equal to 35 mm. For a wafer holder having a diameter of 340 mm (as disclosed in Tables I and II of the instant application), this constitutes a difference of less than 10%. It is readily apparent that both Aruga et al. and Niori et al. show a difference of greater than 10% between the diameters of the front and back faces of the wafer holder. Aruga et al. shows a difference of about 30% (Fig. 6). Niori et al. shows a difference of about 11% (Figs. 6 and 13). Applicants therefore submit that independent claim 1, as amended, is patentable over the prior art of record.
7. Applicant further submits that independent claim 1 is non-obvious in view of the prior art of record. Neither Aruga et al. or Niori et al. recognize the problem faced by Applicants, namely that of achieving a highly uniform temperature distribution across the wafer carrying surface. Nor does either reference suggest the relationship between the relative diameters of the front and back surfaces of the wafer holder and the temperature uniformity as disclosed in the instant application (exemplarily in Tables I and II).
8. It is therefore respectfully submitted that independent claim 1, as amended, should be held allowable for the reasons set forth above in paragraphs 4-7. It follows that dependent claims 2-8 must also be allowable, since these dependent claims carry with them all the elements of independent claim 1 to which they ultimately refer.
9. Applicants present new claims 9-12 for consideration. Claim 9 is supported by Nos. 23-26 and 31-34 of Tables I and II. Claim 10 is supported by Nos. 13-26 and 29-34 of Tables I and II. Claim 11 is supported by Nos. 18-26 and 29-34 of Tables I and II. Claim 12 is supported by Nos. 23-25 and 31-33. No new matter has been entered, nor should a new search be required.
10. Each of new claims 9-12 depend from independent claim 1 and should therefore be allowable for the same reasons set forth above in paragraphs 4-7. Moreover, new claim 9 recites a tighter range of relative differences between diameter **b** and diameter **a** (10 to 30 mm), and should therefore be further allowable over the prior art of record. New claims 10-12 further recite a relative ratio (as a

App. No. 10/709,957  
Amendment dated June 19, 2006  
Reply to Office action of December 19, 2005

percentage) between diameter ***b*** and diameter ***a***, and should therefore also be further allowable over the prior art of record, since there is no teaching in either Aruga et al. or Niori et al. of a wafer-holder front/back or back/front diameter ratio.

Accordingly, Applicants courteously urge that this application is in condition for allowance. Reconsideration and withdrawal of the rejections is requested. Favorable action by the Examiner at an early date is solicited.

Respectfully submitted,

June 19, 2006

/James Judge/

James W. Judge  
Registration No. 42,701

**JUDGE & MURAKAMI IP ASSOCIATES**  
Dojima Building, 7<sup>th</sup> Floor  
6-8 Nishitemma 2-Chome, Kita-ku  
Osaka-shi 530-0047  
JAPAN

Telephone: **305-938-7119**  
Voicemail/Fax: **703-997-4565**